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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/151,670	09/11/1998	STEVEN B. KAUFMAN	KAUFMAN-9-7	8185

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EXAMINER

HAROLD, JEFFEREY F

ART UNIT PAPER NUMBER

2644

DATE MAILED: 05/07/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/151,670

Applicant(s)

KAUFMAN ET AL.

Examiner

Jefferey F Harold

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. ***Claims 1, ~~12~~ 13, 16, 17 and 19-25*** are rejected under 35 U.S.C. 102(b) as being anticipated by Penzias (United States Patent 5,450,481).

Regarding **claim 1**, Penzias discloses a conference tracker (28) to adapt a conventional telephone set (30) for operation as a speaker phone, which reads on claimed “apparatus to adapt a common telephone for operation as a speakerphone”, as disclosed at column 3, lines 25-30; column 4, lines 20-26 and exhibited in figure 1; wherein the conference tracker reads on “apparatus” and conventional telephone set reads on “speakerphone”, comprising:

a speakerphone loudspeaker to enable the use of conference tracker (28) by multiple parties at the same location, which reads on claimed “a speakerphone loudspeaker for producing sounds in a local vicinity of said apparatus”, as disclosed at column 4, lines 21-30 and exhibited in figure 1, wherein enable the use of conference tracker by multiple parties at the same location reads on “producing sounds in a local vicinity of said apparatus”;

a speakerphone microphone adaptively attached to said conference tracker (28), which reads on claimed “speakerphone microphone adaptively attached to said

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apparatus", as disclosed at column 4, line 29-30 and exhibited in figure 2, wherein the speakerphone is adaptively connected to the conference tracker thus the microphone is adaptively attached the conference tracker also, wherein the conference tracker reads on the "apparatus";

a handset jack interface for interfacing the conference tracker to a handset jack of the common telephone, which reads on claimed "a handset jack interface for interfacing said apparatus to a handset jack of said common telephone" as disclosed at column 4, lines 20-31 and exhibited in figures 1 and 2; wherein the conference tracker reads on "apparatus"

the conference tracker adapted for removable interfacing to the handset jack of a base unit of the common telephone (30) to adapt the common telephone (30) for operation as a speakerphone through the speakerphone loudspeaker and the speakerphone microphone, which reads on claimed "an audio module adapted for removable interfacing to said handset jack of a base unit of said common telephone to adapt said common telephone for operation as a speakerphone through said speakerphone loudspeaker and said speakerphone microphone", as disclosed at column 4, lines 21-31 and exhibited in figure 2; wherein the conference tracker reads on "audio module";

wherein the conference tracker (28) is portable for transportation between common telephones and relies on the common telephone for dialing functions, ringing functions, and hook-switch functions, which reads on claimed "wherein said apparatus is portable for transportation between common telephones and relies on said common

telephone for dialing functions, ringing functions, and hook switch functions”, as disclosed at column 4, lines 21-31 and exhibited in figures 1 and 2.

Regarding **claim 12**, Penzias discloses everything claimed as applied above (see claim 1) in addition Penzias discloses wherein the conference tracker (28) is adapted and arranged for direct connection to the base unit of the deskset (30) with out the use of a telephone line interface, which reads on claimed “said audio module is adapted and arranged for direct connection to said base unit of said telephone without use of a telephone line interface”, as disclosed at column 4, lines 20-42 and exhibited in figure 2, wherein the conference tracker reads on “audio module” and deskset reads on “telephone”.

Regarding **claim 13**, Penzias discloses everything claimed as applied above (see claim 1), in addition Penzias discloses wherein the conference tracker (28) comprises an optional speakerphone (26). Further the speakerphone may be implemented with conventional components. Wherein a telephone line interface is inherently a conventional component of a speakerphone, which reads on claimed “a telephone line interface”, as disclosed at column 4, lines 29-33.

Regarding **claims 16 and 19-25** they are interpreted and thus rejected for the reason set forth above in the rejection of claim 1

Regarding **claim 17**, Penzias discloses everything claimed as applied above (see claim 16), in addition Penzias discloses conference tracker (28) which comprises a speakerphone 26 with a loud speaker thus the output from the handset connection is amplified, as disclosed at column 4, lines 21-45 and exhibited in figures 1 and 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. ***Claims 4 -11*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Penzias in view of Hemkumar et al. (United States Patent 6,212,273), hereinafter referenced as Hemkumar.

Regarding **claim 4**, Penzias discloses everything claimed as applied above (see claim 1), in addition Penzias discloses the conference tracker (28) comprising a speaker phone (26), as exhibited in figure 2, however, Penzias fails to disclose operating in a half-duplex mode. However, the examiner maintains that it was well known in the art to provide operating in a half-duplex mode, as taught by Hemkumar.

In a similar field of endeavor Hemkumar discloses a full-duplex speakerphone circuit including a control interface. In addition, Hemkumar discloses wherein the echo canceller does not perform adequately so that a fail-safe technique is employed to guarantee communication. Reverting to half-duplex operation is one technique for assuring communication, which reads on claimed "adapted to be operated in a half-duplex mode" as disclosed at column 11, lines 15-23 and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing operating in a

half-duplex mode, as taught by Hemkumar, for the purpose of preventing howling and echoes from interfering with communications.

Regarding **claim 5**, Penzias discloses everything claimed as applied above (see claim 1), in addition Penzias discloses the conference tracker (28) comprising a speaker phone (26), as exhibited in figure 2, however, Penzias fails to disclose operating in a full-duplex mode. However, the examiner maintains that it was well known in the art to provide operating in a full-duplex mode, as taught by Hemkumar.

In addition, Hemkumar discloses wherein once the adaptive filters of the full-duplex speaker phone integrated circuit (100) have adapted sufficiently, the half-duplex mode is disabled and full-duplex communication begins, which reads on claimed "adapted to operate in a full-duplex mode" as disclosed at column 11, lines 28-32 and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing operating in a full-duplex mode, as taught by Hemkumar, for the purpose of allowing voice communication in both directions simultaneously.

Regarding **claim 6**, Penzias discloses everything claimed as applied above (see claim 5), in addition Penzias discloses the conference tracker (28) comprising a speakerphone (26), as exhibited in figure 2, however, Penzias fails to disclose an audio echo canceller. However, the examiner maintains that it was well known in the art to provide an audio echo canceller, as taught by Hemkumar.

In addition, Hemkumar discloses an acoustic echo canceller (152), which reads on claimed "audio echo canceller", as disclosed at column 6, lines 24-48 and exhibited in figures 1 and 2, wherein the acoustic echo canceller reads on "audio echo canceller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing an acoustic echo canceller, as taught by Hemkumar, for the purpose of compensation for different and changing room conditions.

Regarding **claim 7**, Penzias discloses everything claimed as applied above (see claim 6), however, Penzias fails to disclose wherein the audio echo canceller is an algorithm included in a digital signal processor. However, the examiner maintains that it was well known in the art to provide wherein the audio echo canceller is an algorithm included in a digital signal processor, as taught by Hemkumar.

In addition, Hemkumar discloses wherein the adaptive filter (208) supplies the echo canceling operation of the acoustic echo canceller (152), and the adaptive filter is digital FIR filter that adjust the FIR filter coefficients to match a transfer function. Further speakerphone integrated circuit (100) is a complete implementation of a digital signal processor, which reads on claimed "said audio echo canceller is an algorithm include in a digital signal processor", as disclosed at column 3, lines 6-10; column 6, lines 38-47 and exhibited in figures 1 and 2, wherein the acoustic echo canceller reads on "audio echo canceller", and digital FIR filter that adjust the FIR filter coefficients to match a transfer function reads on "algorithm".

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing wherein the audio echo canceller is an algorithm included in a digital signal processor, as taught by Hemkumar, for the purpose of processing the digital signal transferred from the communication line.

Regarding **claim 8**, Penzias discloses everything claimed as applied above (see claim 7), however, Penzias fails to disclose a hybrid echo canceller. However, the examiner maintains that it was well known in the art to provide a hybrid echo canceller, as taught by Hemkumar.

In addition, Hemkumar discloses a network echo canceller (128), which reads on claimed "hybrid echo canceller", as disclosed at column 6, lines 24-30 and exhibited in figures 1 and 2, wherein the network echo canceller reads on "hybrid echo canceller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing an hybrid echo canceller, as taught by Hemkumar, for the purpose of compensation for different and changing line conditions.

Regarding **claim 9**, Penzias discloses everything claimed as applied above (see claim 1), in addition Penzias discloses wherein the conference tracker (28), which reads on claimed "audio module", as exhibited in figure 2, comprises: a CODEC (18) for converting a signal to and from the handset jack of the base unit of the deskset (30) between analog and digital signal, which reads on claimed "a first codec for converting a signal to and from said handset jack of said base unit of said telephone between analog

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and digital signal", as disclosed at column 3, lines 41-53 and exhibited in figure 2, wherein CODEC (18) reads on "first codec" and deskset reads on "base unit"

a DSP (12);

a CODEC (20) for converting a signal to the speakerphone (26) loudspeaker and a signal from the speakerphone microphone into respective analog and digital signals, which reads on claimed "a second codec for converting a signal to said speakerphone loudspeaker and a signal from said speakerphone microphone into respective analog and digital signals", as disclosed at column 3, lines 41-61 and exhibited in figure 2; wherein CODEC (20) reads on "second codec";

However, Penzias fails to disclose an echo canceller. However, the examiner maintains that it was well known in the art to provide an echo canceller, as taught by Hemkumar.

In addition, Hemkumar discloses a DSP (114) that implements echo cancellation, which reads on claimed "echo canceller", as disclosed at column 3, lines 6-12 and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing an echo canceller, as taught by Hemkumar, for the purpose of isolating and filtering unwanted signals.

Regarding **claim 10**, Penzias discloses everything claimed as applied above (see claim 9), , however, Penzias fails to disclose an audio echo canceller. However, the examiner maintains that it was well known in the art to provide an audio echo canceller, as taught by Hemkumar.

In addition, Hemkumar discloses an acoustic echo canceller (152), which reads on claimed "audio echo canceller", as disclosed at column 6, lines 24-48 and exhibited in figures 1 and 2, wherein the acoustic echo canceller reads on "audio echo canceller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing an acoustic echo canceller, as taught by Hemkumar, for the purpose of compensation for different and changing room conditions.

Regarding **claim 11**, Penzias discloses everything claimed as applied above (see claim 10), however, Penzias fails to disclose a hybrid echo canceller. However, the examiner maintains that it was well known in the art to provide a hybrid echo canceller, as taught by Hemkumar.

In addition, Hemkumar discloses a network echo canceller (128), which reads on claimed "hybrid echo canceller", as disclosed at column 6, lines 24-30 and exhibited in figures 1 and 2, wherein the network echo canceller reads on "hybrid echo canceller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing an hybrid echo canceller, as taught by Hemkumar, for the purpose of compensation for different and changing line conditions.

Claims 2, 3, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penzias in view of well know prior art (MPEP 2144.03).

Regarding **claim 2**, Penzias disclose everything claimed, as applied above, (see claim 1), however, Penzias fails to disclose a power supply. However, the examiner takes official notice of the fact that it was well know in the art to provide a power supply.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing a power supply, for the purpose of providing an additional power source for functions that require more power than that available from the telephone line.

Regarding **claim 3**, Penzias disclose everything claimed, as applied above, (see claim 2), however, Penzias fails to disclose a power supply is adapted to include a battery. However, the examiner takes official notice of the fact that it was well know in the art to provide a power supply adapted to include a battery.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing a power supply adapted to include a batter, for the purpose of providing a backup power source in the event of a AC power failure.

Regarding **claim 14**, Penzias disclose everything claimed, as applied above, (see claim 1), however, Penzias fails to disclose a switch for switching between the handset and handset jack of the telephone and switching between a position that connects the audio module to the handset jack. However, the examiner takes official notice of the fact that it was well know in the art to provide a switch for switching between the handset and handset jack of the telephone and switching between a position that connects the audio module to the handset jack.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing a switch for switching between the handset and handset jack of the telephone and switching between a position that connects the audio module to the handset jack, for the purpose of switching between two known configurations.

Regarding **claim 15**, Penzias disclose everything claimed, as applied above, (see claim 1), however, Penzias fails to disclose a voice pager. However, the examiner takes official notice of the fact that it was well known in the art to provide a voice pager.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Penzias by specifically providing a voice, for the purpose of audible announcing data to the user.

Regarding **claim 18**, Penzias disclose everything claimed, as applied above, (see claim 17), in addition claim 18 is interpreted and thus rejected for the reasons set forth above in the rejection of claim 3.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JFH
May 3, 2004

Jefferey F Harold
Examiner
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